

Comments by division and program follow.

## **Fish and Wildlife**

**Rare Species/Natural Communities.** Our field scientists have not surveyed this project area; therefore, we are unable to provide information pertaining to the existence of state-rare or federally listed plants, animals or natural communities at this project site. In the absence of site-specific information, we offer the following comments:

We recognize that this project is an integral part of a much larger master plan and have concerns regarding potential impacts to rare species that occur along or within Sheep Pen Ditch, Mirey Branch and Cow Bridge Branch. State-rare Atlantic white cedar wetlands have been documented along Sheep Pen Ditch and parts of Cow Bridge Branch. These unique wetlands typically grow under unique conditions which are often refugia for rare species. This wetland type is sensitive to sedimentation and changes in water quality, especially pH. The hydrological regime is a major determinant of the resulting biota in this system. If these conditions are disturbed or changed in any way from development activities, the potential exists for community structure and plant species composition to shift in an unfavorable direction.

Of particular concern is the potential for stormwater run-off generated by such a large development to ultimately flow towards or impact the Doe Bridge Nature Preserve (DBNP). DBNP is an area of approximately 314 acres along Cow Bridge Branch that has a large tract of intact forest. Surveys are on-going; however, initial surveys have revealed a unique array of vegetation communities. These communities support 26 species of rare plants. Additionally, twelve species of rare animals were discovered at DBNP, including a visual observation of a federally endangered Delmarva fox squirrel (*Sciurus niger cinereus*) and actual documentation of Chermock's mulberry wing (*Poanes massasoit chermocki*), a butterfly that has been found at only one other site in the world.

**Nuisance Waterfowl.** Wet stormwater ponds, especially the large pond in the center of the track, may attract resident Canada geese and mute swans. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species.

Exclusion is one of the most effective methods at deterring geese. In a setting such as this project, completely fencing the pond at the edge (even one foot high) may be feasible. Even though geese can fly over the fence, if they constantly have to fly between land and water the area is less desirable. If fencing is not a desired option, we recommend native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within an adequate buffer (15-30 feet in width) around the ponds. When the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond. The vegetation also blocks the ability to easily move between land and water.

At this time, we do not recommend using monofilament grids due to the potential for birds and other wildlife to become entangled if the grids are not properly installed and maintained. In addition, the on-going maintenance (removing entangled trash, etc.) may become a burden to the homeowners association or land manager.

The Division of Fish and Wildlife does not provide goose control services; if problems arise, land owners or managers will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized. *Edna Stetzar* - (302) 653-2880, [Edna.Stetzar@state.de.us](mailto:Edna.Stetzar@state.de.us)

## **Soil and Water**

**Sediment and Stormwater Program.** Please continue to work with the Sussex Conservation District in addressing the comments from their review of your submitted sediment and stormwater management plans.

**Drainage Program.** The Drainage Program requests the engineer take precautions to ensure the project does not hinder any off-site drainage upstream of the project or create any off site drainage problems downstream by the release of onsite storm water. The Drainage Program requests the engineer check existing downstream ditches and pipes for function and blockages prior to the construction. Notify downstream landowners of the change in volume of water released on them.

Have all drainage easements recorded on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction.

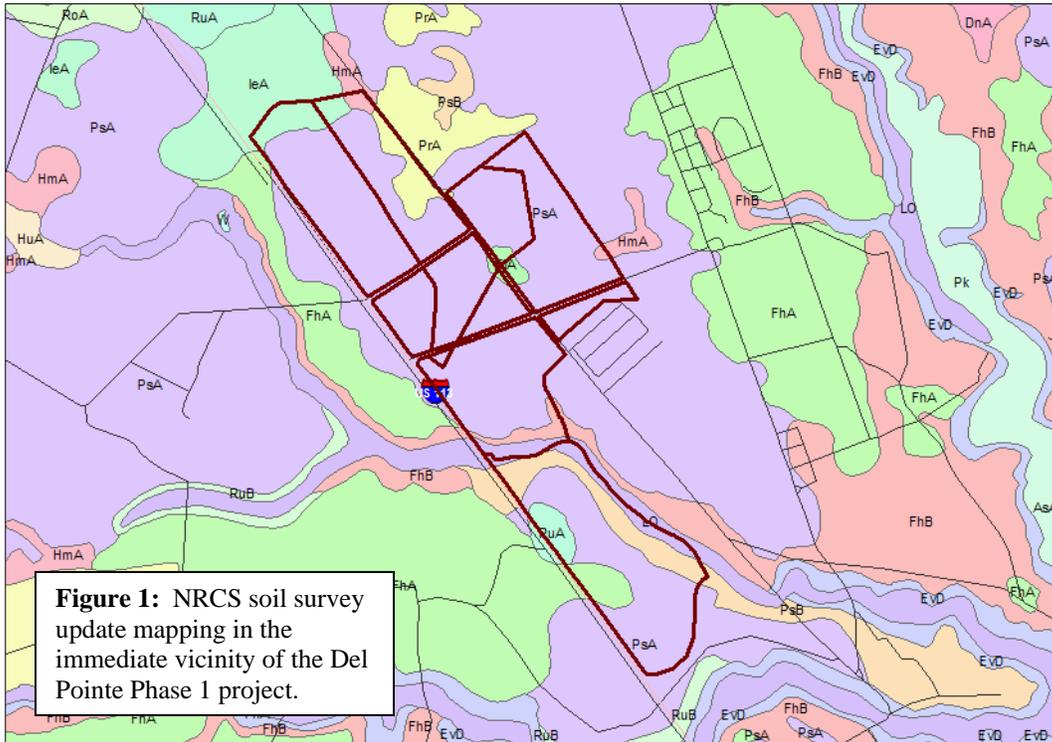
*Sediment/Stormwater and Drainage comments provided by James Sullivan* - (302) 739-9921, [James.Sullivan@state.de.us](mailto:James.Sullivan@state.de.us)

**Flood Management.** No comment on Phase I. We do want to make the applicant aware that a portion of this property is located in a Special Flood Hazard area. A base flood elevation will need to be established for the tip of Mirey Branch that is still labeled Zone A. *Gregory Williams* - (302) 739-9921, [Gregory.Williams@state.de.us](mailto:Gregory.Williams@state.de.us)

## **Water Resources**

**Soils Assessment.** Based on the NRCS soil survey update, Ingleside (IeA), Fort-Mott Henlopen complex (FhA & FhB), Pepperbox-Rosedale complex (PsA & PsB), Pepperbox-Rockawalkin complex (PrA), Fallsington (FhB), and Longmarsh (LO) were mapped in the immediate vicinity of the proposed construction. Ingleside and Fort Mott-Henlopen complex are well-drained upland soils that, generally, have few limitations for development. Pepperbox-Rosedale complex are moderately to well-drained soils that have few to moderate limitations for development. Pepperbox-Rockawalkin complex are moderately to somewhat poorly-drained soils that have moderate to severe limitations for development. Fallsington and Longmarsh are poorly to very

poorly-drained wetland associated (hydric) soils that have severe limitations for development and should be avoided.

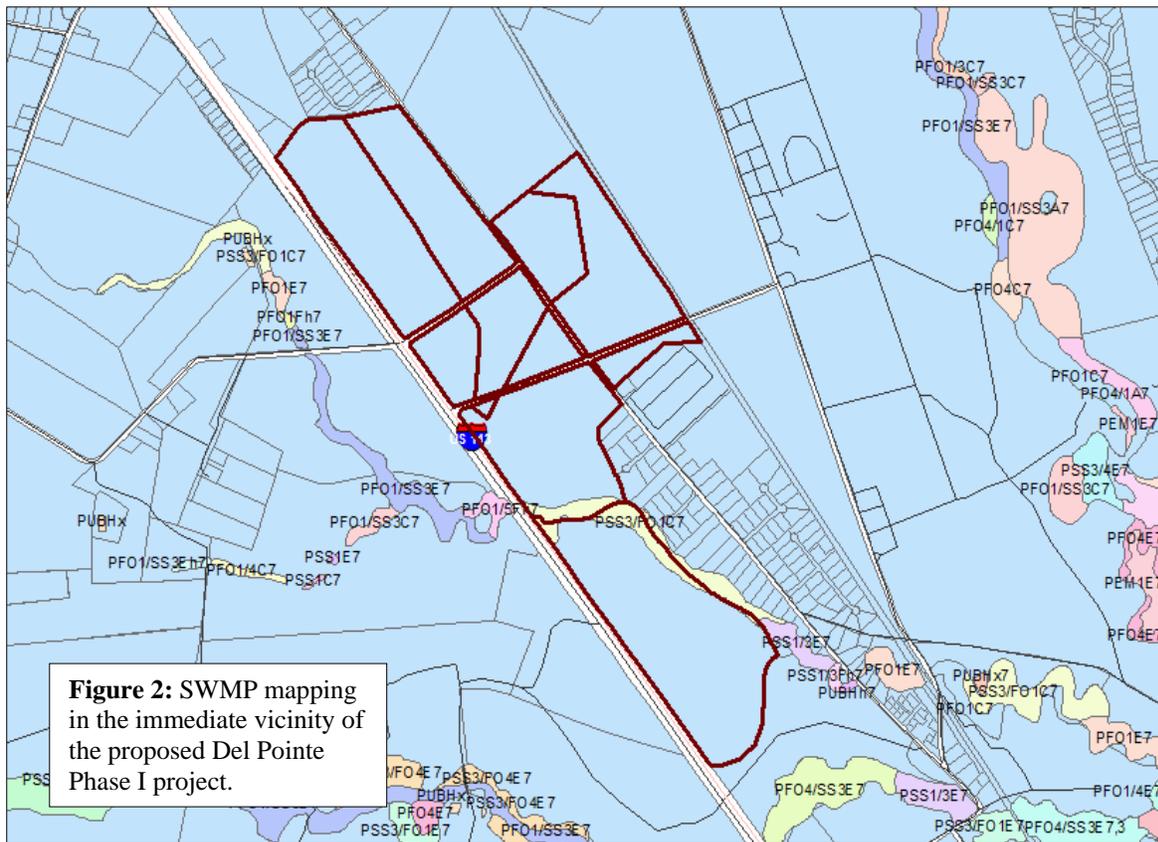


**Wetlands.** Based on the Statewide Wetland Mapping Project (SWMP) maps, palustrine scrub-shrub/forested riparian wetlands (PSS3/FO1C7) were mapped in the immediate vicinity of the proposed project (Figure 2).

The applicant is responsible for determining whether any State-regulated wetlands (regulated pursuant to 7 Del.C. Chapter 66 and the Wetlands Regulations) are present on the property. This determination can only be made by contacting the Division of Water Resources' Wetlands and Subaqueous Lands Section at 302/739-9943 and consulting the State's official wetland regulatory maps, which depict the extent of State jurisdiction. The area regulated by State law may be very different from the area under federal authority. No activity may take place in State-regulated wetlands without a permit from DNREC's Wetlands Section.

In addition, most perennial streams and ditches and many intermittent streams and ditches are regulated pursuant to the Subaqueous Lands Act (7 Del.C. Chapter 72) and the Regulations Governing the Use of Subaqueous Lands. Ponds which are connected to other waters are also regulated, while isolated ponds are not. Any work in regulated streams, ditches or ponds requires a permit from the Wetlands and Subaqueous Lands Section. An on-site jurisdictional determination is recommended in order to determine whether any regulated watercourses exist on the property. Please contact the Wetlands and Subaqueous Lands Section at 302/739-9943 to schedule an on-site visit. Such appointments can usually be scheduled within 2 to 3 weeks.

When designing a project on a site with regulated watercourses, any extensive piping, filling or burying of streams or ditches in excess of the minimum needed for road crossings should be avoided. Where road crossings are necessary, bridge spans which avoid significant impacts to stream banks and channels should be used wherever possible. Where placement of culverts is unavoidable, culvert designs which utilize multiple barrels at different elevations to preserve a low flow channel are usually preferred. Contact the Wetlands and Subaqueous Lands Section for further information regarding preferred designs.



The applicant should also be reminded that they must avoid construction/filling activities in those areas containing wetlands or wetland associated hydric soils as they are subject to regulatory jurisdiction under Federal 404 provisions of the Clean Water Act. A site-specific field wetlands delineation using the methodology described in the 1987 United States Army Corps of Engineers (USACE or “the Corps”) manual is the acceptable basis for making a jurisdictional wetland determination for nontidal wetlands in Delaware.

The applicant is forewarned that the Corps views the use of the National Wetlands Inventory (NWI) mapping or the Statewide Wetlands Mapping Project (SWMP) mapping as an unacceptable substitute for making such delineations. To ensure compliance with said Corps regulatory requirements, it is strongly recommended that a field wetlands delineation using the above-referenced methodology be performed on this parcel before commencing any construction activities. It is further recommended that the Corps be given the opportunity to officially approve the completed delineation. In circumstances where the applicant or applicant’s

consultant delineates what they believe are nonjurisdictional isolated (SWANCC) wetlands, the Corps must be contacted to evaluate and assess the jurisdictional validity of such a delineation. The final jurisdictional authority for making isolated wetlands determinations rests with the Corps; they can be reached by phone at 736-9763.

**Impervious Surfaces and Best Management Practices.** The applicant estimates this project's post-construction surface imperviousness to reach about 25 percent. Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of this project's most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.

**TMDLs.** Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. This project is located in a high nutrient reduction area requiring an 85 and 65 percent reduction in nitrogen and phosphorus, respectively. Additionally, a 40 percent reduction in bacteria is also required.

The adopted Inland Bays Pollution Control Strategy regulation was published in the Delaware Register of Regulations on November 1, 2008 and is now an enforceable regulatory directive. A Pollution Control Strategy (PCS) is an implementation strategy that identifies the actions necessary to systematically reduce the pollutant loading to a given water body, and meet the TMDL reduction requirements specified for that water body. These regulations can be reviewed at <http://regulations.delaware.gov/documents/November2008c.pdf> and background information, guidance documents, and mapping tools can be retrieved from [http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib\\_pcs.htm](http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib_pcs.htm). The regulations address establishing a buffer zone sediment and stormwater controls for new development projects, and additional measures and standards for onsite wastewater treatment and disposal systems.

The regulations require that buffers of a specified width be established for State-regulated wetlands, tidal waters, primary and secondary water features. The width may be reduced when combined with advanced sediment and stormwater controls and upon the creation of a development-wide nutrient management plan. Buffers must be placed in common open space and be clearly demarcated, designated and recorded on final plans or plat. Buffers must be maintained in perpetuity and must have boundary signs or markers or distinctive vegetation identifying the upland edge of the buffer.

The regulations also require that permanent sediment and stormwater management plans be designed and implemented to include design criteria to further reduce nutrient contributions. Compliance with this provision can be through any of the options below.

- For properties with water features:
  1. Implement standard width buffers
  2. Implement reduced width buffers in conjunction with advanced stormwater controls and a development-wide nutrient management plan.
- For properties without water features or those utilizing a reduced-width buffer, select from the following advanced stormwater control methods:
  1. Reduce nutrients by the TMDL percentage
  2. Reduce nutrients to irreducible concentration levels
  3. Implement three practices within a treatment train
  4. Establish 30% of the project parcels as forest in common open space.

At a meeting with the Sussex Conservation District and DNREC's Sediment and Stormwater Program staff, T.P. One, LLC consultants indicated that they will likely go through the nutrient reduction calculations for this initial phase, mainly due to some uncertainty in locating some proposed features for the next phase. Based upon that decision, the proposed development will need 50-foot buffers from State-regulated wetlands or the mean high water waterline of all tidal waters and any other primary water features and 30-foot buffers from the ordinary high water mark of all secondary water features. In addition, as a result of utilizing the reduced-width buffers, a certified nutrient consultant must develop a development-wide nutrient management plan which must be implemented by a certified nutrient handler.

The proposed project will connect to Millsboro's central sewer system and therefore, the onsite treatment and disposal system requirements of the Inland Bays Pollution Control Strategy do not apply.

Additional nutrient reductions may be possible through the implementation of best management practices such as wider vegetated buffers along watercourses and wetlands, increasing passive, wooded open space, and use of pervious paving materials to reduce surface imperviousness (i.e., pervious pavers).

T.P. One, LLC's consultants may want to contact Lyle Jones at 302-739-9939 to discuss using Nutrient Budget Protocol, which is an assessment tool to help evaluate whether the proposed project will meet TMDL nutrient reduction requirements in this high nutrient reduction area. The nutrient assessment tool can be used on a voluntary basis in addition to the series calculations needed for stormwater best management practices in order to allow consultants to quickly assess the effects of various pollutant reducing practices on the proposed project site and may therefore allow a more informed decision on the affect of this project on the nutrient load of the Inland Bays.

*Soils, wetlands, subaqueous lands and TMDL comments provided by John Martin, Watershed Assessment Section, (302) 739-9939, [John.Martin@state.de.us](mailto:John.Martin@state.de.us)*

**Water Supply.** The information provided indicates that the Town of Millsboro will provide water to the proposed projects through a public water system. Our files reflect that the Town of Millsboro does not currently hold a Certificate of Public Convenience and Necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-736-7547. Should an on-site public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area, and at least 150 feet from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

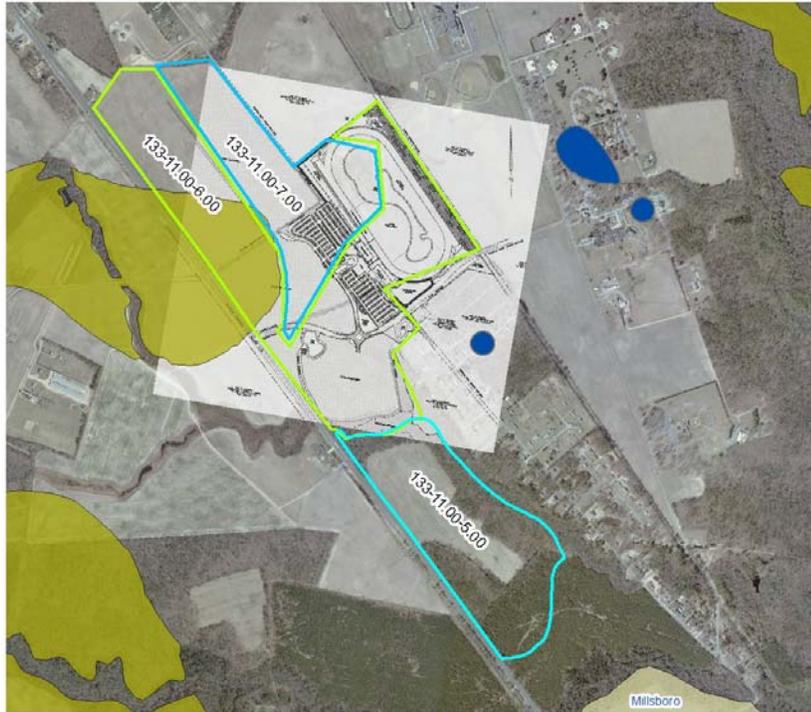
All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising. *Ricardo Rios* - (302) 739-9944, [Ricardo.Rios@state.de.us](mailto:Ricardo.Rios@state.de.us)

**Water Resource Protection Areas.** The DNREC Water Supply Section, Ground-Water Protection Branch (GPB) has determined that the parcel falls within a good ground-water recharge area for Sussex County (see map). There is no proposed development within the good ground-water recharge area.

The area is proposed for annexation and consideration by the Town of Millsboro. Good ground-water recharge potential areas are protected under the Town's ordinance §210-23.C. (3) (a). The ordinance limits impervious cover to no greater than 50% and has restrictions on land use and land activities.

### Del Pointe (PLUS 2009-05-07)

The site plan for the Del Pointe is overlain by the Wellhead Protection, and Good Ground-Water Recharge Potential Areas for the Town of Millsboro and surrounding area.



#### Legend

- Excellent Ground-Water Recharge Potential
- Good Ground-Water Recharge Potential
- Municiple Boundaries

0 750 1,500 3,000 Feet  
1:18,000



Anne Mundel - (302) 739-9945, [Anne.Mundel@state.de.us](mailto:Anne.Mundel@state.de.us)

## Air and Waste

**Hazardous Waste Sites.** DNREC's Site Investigation and Restoration Branch (SIRB) has reviewed the proposed project. No SIRB sites or salvage yards were found within a ½-mile radius of the proposed development. However, based on the previous agricultural use of the proposed project site, which may have involved the use of pesticides and herbicides, SIRB recommends that a Phase I Environmental Site Assessment be performed prior to development. In addition, should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour

emergency number (800-662-8802). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions. *Krystal Stanley* - (302) 395-2644, [Krystal.Stanley@state.de.us](mailto:Krystal.Stanley@state.de.us)

**Tank Management Branch.** There are no LUST sites located within a quarter mile from the proposed project.

No environmental impact is anticipated; however, should any underground storage tanks or petroleum contaminated soil be discovered by any person during construction, the DNREC-TMB at (302) 395-2500 and the DNREC Emergency Response Hotline at (800) 662-8802 must be notified within 24 hours.

Should any contamination be encountered, PVC pipe materials will have to be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

Also, please note that if any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMB. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMB. *Elizabeth Wolff* - (302) 395-2500, [Elizabeth.Wolff@state.de.us](mailto:Elizabeth.Wolff@state.de.us)